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A system for classifying thought processes in the context of classroom verbal interaction is presented.

The development of the system is necessary to the study of the verbal performances of teachers and students to assess the quality of thinking that is elicited and expressed in the course and context of classroom operation.

Verbal performances conveyed on a tapescript, which is a tape recording supplemented by an observer's detailed notes, can be classified according to this system. The five primary sets or groups of categories are cognitive memory, convergent thinking, evaluative thinking, divergent thinking, and the routine category which includes not only the typical teacher and student maneuverings that constitute the familiar classroom scene but also certain types of discussion behaviors.

A table of categories with short definitions is given, with examples of each type. Under "routine" are included the terms "management," "structuring," "verdict," "agreement," "self-reference," "muddled," and "humor." Under "cognitive-memory" are included "recapitulation," "clarification," and "factual." "Convergent thinking" contains the terms "translation," "explanation," "association," and "conclusion." Under "evaluative thinking" are the terms "unstructured," "structured," and "qualified." Under "divergent thinking" are included "elaboration," "divergent association," "implications," and "synthesis." Procedures for marking tapescripts, classification distinctions, and an example of a tapescript are included.

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A CLASSIFICATION SYSTEM FOR ANALYSIS OF VERBAL CLASSROOM INTERACTION

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A SYSTEM FOR CLASSIFYING THOUGHT PROCESSES IN THE CONTEXT OF CLASSROOM VERBAL INTERACTION

Mary Jane Aschner
James J. Gallagher
Joyce M. Perry
Sibel S. Afsar
William Jenné
Helen Farr

Institute for Research
on Exceptional Children

University of Illinois

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ASCHNER - GALLAGHER SYSTEM

FOR CLASSIFYING THOUGHT PROCESSES IN THE CONTEXT OF CLASSROOM VERBAL INTERACTION*

Introduction

The spoken discourse of the classroom can be studied profitably from many standpoints and for many purposes. It is our purpose to study the verbal performances of teachers and students in order to assess the quality of thinking that is elicited and expressed in the course and context of classroom operation. We are particularly interested in productive thinking, which we view from the standpoint suggested in Guilford's well known Structure of Intellect.[1]

We wish to determine several things: (1) the character of thinking operations, both productive and non-productive, as performed in the context of verbal interaction--as distinct from performance on written tests; (2) the relative frequency with which the variety of thinking operations occur while class is in session; (3) the extent to which various teaching procedures and classroom activities affect the amount and quality of productive thinking exhibited in student verbal performance.

In order to accomplish these purposes, it is necessary, first of all, to secure a verbatim record of all that is said during a class session, and a careful description of all the behavioral and other non-verbal components of the moment-to-moment context within which verbal interaction proceeds. Tape-recordings, transcribed verbatim, supplemented by detailed observer's notes, and processed into specially designed dittoed forms which we call tapescripts, serve this purpose effectively.

Secondly it is necessary to classify the verbal performances conveyed on the tapescript in terms of the particular conceptual framework within which we wish to examine thinking. This required the development of a system of categories which not only defines the types of thought processes to be identified in verbal performance, but which also embraces and accounts for the great variety of associated and typical behaviors--both verbal and non-verbal--that characterize routine classroom operation. Accordingly, we have developed five primary sets or groups of categories for the classification of what is said and done in the classroom. Four of these--COGNITIVE MEMORY, CONVERGENT THINKING, EVALUATIVE THINKING, and DIVERGENT THINKING--represent our adaptation of Guilford's model of the operations of intellect, and serve in the classification of productive and non-productive thought processes as they are reflected in classroom verbal behavior. The ROUTINE category includes not only the typical teacher and student maneuverings that constitute the familiar classroom scene, but also certain types of individual and group discussion behaviors that are of particular interest to us for present research purposes.

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[1] J.P. Guilford. Three faces of intellect. Amer. Psychologist, 1959, 8, 469-79

The organization of the category system (see p.iii) presents the five primary operational categories, each with its own set of secondary sub-categories. Some of the secondary categories represent types of thinking operations that are reflected in a variety of verbal performances. Re-capitulation (Re), for example, includes several variants--from Quoting (Req) to Recounting (Rec)--each one of which exemplifies cognitive-memory operating with matters that have been discussed, written, read, said or done at some time previous to the current moment of discussion.

It should also be noted that the letter symbols for the secondary categories and their variant forms provide semantic cues for identifying the kinds of verbal performances they designate. We have found that these semantically weighted symbols enable the analyst to learn the "vocabulary" of the category system more readily and to classify more efficiently the succession of verbal performances on a tapescript than he could with a set of arbitrary--say, numerical--symbols.

The table of categories (pp.iv -viii)with its accompanying set of short definitions, was also designed to increase efficiency in classifying tape-scripts. Once the analyst has become acquainted with the category system with its fully elaborated definition for each category along with a set of illustrative examples taken from classroom tapescripts, he can rely, most of the time, upon this list of short definitions. When a "problem case" arises, leaving the analyst in doubt as to how it should be classified, he refers back to the fuller descriptions and definitions of the category system itself.

The section following the category system (pp.) presents the set of procedures and policies we have developed for marking tapescripts and flow charts. In addition to assigning the category symbol to a given verbal performance, there are a number of other symbols and marks which are used to indicate the character of the performance. For example, when a question is asked, its category symbol is underscored to show that this verbal performance is a question asked rather than a statement. These statements of rules and policies of procedure provide not only for consistency among analysts in marking tapescripts; they also reflect decisions we have made concerning the relative detail and fineness of distinctions to be drawn for the purposes of our initial over-all survey and tabulations of the types of verbal performances found on the tapescripts.

The appendix contains useful materials for the reader who is interested to see how we analyze the tapescripts, and who may want to try his own hand at classifying a tapescript. There he will see a sample flow-chart, which illustrates how we trace patterns of teacher-student interaction by means of the category symbols used to classify their verbal performances on a tape-script. There are also presented four sample excerpts from actual tape-scripts. The first page of each has been marked according to our category system; the second page has been left unmarked for those who want to do a bit of tapescript analysis on their own.

This volume is designed to inform readers about our system for classifying thought processes in the context of classroom verbal interaction. It is not a training manual. In order to develop a "finger-tip command" of this category system and of the procedures for its use on tapescripts, a large amount of supervised practice would be necessary.

April, 1962 Version

ORGANIZATION OF CATEGORY SYSTEM

I. R ROUTINE		II. C-M COGNITIVE MEMORY		III. CT CONVERGENT THINKING		IV. ET EVALUATIVE THINKING		V. DT DIVERGENT THINKING	
M	Mq	Scr		Tr		U	Ura	El	s/f
	Mp						Uju		
	Ma	Re	Req	As				Ad	s/f
	Mnc		Rep			S	Svp		
	Mfb		Rec	Ex	Exr		Svc	Imp	s/f
	Mw		Rev		Exv				
					Exn	Q	Qj	Syn	
St	Sts	Cl	Clm				Q-c		
	Sto		Clq	Con	Gen				
	Stf				Cons				
	Stc	F	Fs		Conl				
			Fd						
Ver	+1-		Fm						
Verp	+1-								
Agr	+1-								
S									
Du									
Mu									
Hu									

TABLE OF CATEGORIES WITH SHORT DEFINITIONS

I. ROUTINE (R)

This category includes routine classroom procedural matters such as management of the classroom, the structuring of class discussion and approval or disapproval of the idea or the person.

Page

MANAGEMENT 1

Mq - Question: Requests or invitations to speak; calling for questions, as in "Anybody have a question?" 1

Mp - Procedure: Announcements or procedural instructions, given or requested for individuals or the group as a whole 2

Ma - Aside: Incidental or parenthetical comment; gratuitous content . . 2

Mnc - Nose-Counting: Calling for or responding with a show of hands for a tally or canvas. 2

Mfb - Feedback: Request for or response with signs from group as to whether or not the speaker's actions or remarks are clearly understood . 3

Mw - Work: Non-verbal actions or seatwork going on in connection with current discussion or class proceedings. 3

X - Unclassifiable response primarily due to technical recording difficulties. . . . . .

STRUCTURING 3

Sts - Self-Structuring: Conventional prefatory move to signal content and purport of one's own next remarks or behavior. 4

Sto - Structuring Other(s): Engineering next speech or actions of other(s). Monitoring other's performance. Pump-priming to keep discussion going on a point already before the class. 4

Stf - Future Structuring: Forecast of future activity, study, learning, etc. beyond this particular class session 5

Stc - Class Structuring: Focusing class attention on point to be emphasized or taken up; laying groundwork for question or problem; probing, pushing, adding data for bogged-down class (teacher only) . .. 5

VERDICT 6

Ver - Verdict: (+or-) Impersonal praise or reproach on quality of academic performance of individual or group 6

Verp - Personal Verdict: (+or-) Personal praise or reproach of individual. (Occasionally by T on whole class) Negative Verp generally on deportment 6

Page

Agr - AGREEMENT: (+or-) Acceptance or rejection of content; conceding a point; not permission-giving nor procedural. 7

S - SELF REFERENCE: Speaker's personal report or comment upon or about self. Often conventional device; cautionary tactic 8

Dn - DUNNO: Explicit indication that one does not know. 8

Mu - MUDDLED: Speaker confused, mixed up, flustered. 9

Hu - HUMOR: Remark of evident witty, humorous, or comic intent; response (usually laughter) to same 9

II. COGNITIVE-MEMORY (C-M)

C-M operations represent the simple reproduction of facts, formulas and other items of remembered content through use of such processes as recognition, rote memory and selective recall.

Scr - SCRIBE: Giving a spoken or written spelling or exemplification of a word or expression 10

RECAPITULATION 10

Req - Quoting: Rote recitation or literal reading from text, paper or notes in hand 10

Rep - Repetition: Literal or nearly verbatim restatement of something just said. 11

Rec - Recounting: Narration of past extra-class occurrence 11

Rev - Review: Recitation of material which occurred or was discussed in current or past class session 12

CLARIFICATION. 13

Clm - Clarifying Meaning: Rendering a previous statement more intelligible either by (a) restating or rephrasing or (b) adding informative details 13

Clq - Clarifying Qualification: Render a previous statement more accurate either by (a) "Entering a rider" upon the remark or (b) entering an explicit correction 14

FACTUAL. 15

Fs - Fact Stating: Requests for and recitations of items taken to be matters of fact. 15

Page

Fd - Fact Detailing: Spinning out further a prior assertion of fact or other statements (As, Exr) in which factual items were mentioned. 16

Fm - Factual Monologue: Reporting of factual material in the form of a monologue during which verbal exchange is conventionally excluded 16

III. CONVERGENT THINKING

Convergent thinking is thought operation involving the analysis and integration of given or remembered data. It leads to one expected result because of the tightly structured framework which limits it.

TRANSLATION 18

Tr - Translation: Shift of conceptual material from symbolic or figural content to semantic, or vice versa 18

ASSOCIATION 19

As - Association: Involving likenesses and differences; degrees of comparison; and relationships of direction, spatial position and/or classification, etc. 19

EXPLANATION 20

Exr - Rational Explanation: Asking or telling why X is the case; why Y caused X, etc. Substantiating a claim or conclusion by citing evidence 20

Exv - Value Explanation: Asking or telling why X is good, bad, useful, important, etc. Justifying a rating, viewpoint, or value-based judgment by giving reasons why. 20

Exn - Narrative Explanation: Step-by-step account of how something is done, how a mechanism works, or of what led up to an event or given outcome 21

CONCLUSION. 21

Gen - Generalization: Integration of prior remarks by slightly more general reformulation. 21

Cons - Summary Conclusion: Summary reformulation, often serial or enumerative, of material treated in discussion or reading 22

Conl - Logical Conclusion: Calling for a deductively drawn implication from material presented 23

IV. EVALUATIVE THINKING (ET)

Page

Evaluative thinking deals with matters of value rather than matters of fact and is characterized by verbal performance by its judgmental character.

UNSTRUCTURED. 25

Ura - Unstructured Rating: A value judgment produced or requested on some idea or item in terms of a scale of values provided by the respondent 25

Uju - Unstructured Judgment: A value judgment produced or requested on some idea or item wherein the value dimension has already been provided. 25

STRUCTURED 26

Svp - Structured Probability: An estimate or speculative opinion is given or requested as to the likelihood of some occurrance or situation. 26

Svc - Structured Choice: Speaker calls for or declares his position as a choice between alternatives (not between Yes or No answers) . . 26

QUALIFICATION 27

Qj - Qualified Judgment: An offer or request for a rider or modification to a prior value judgment. Also, attempts to make more precise the value dimension discussed. 27

Q-c - Counter Judgment: Speaker declares a directly opposed position with respect to value statement of a previous classroom speaker. . 27

V. DIVERGENT THINKING (DT)

In a Divergent Thinking sequence, individuals are free to independently generate their own data within a data-poor situation, often taking a new direction or perspective.

El - ELABORATION: Structured or free (s or f). Building upon a point already made; filling out or developing a point, but not shifting to a new point, often by concocting instances or examples 30

Ad - DIVERGENT ASSOCIATION: (s or f) Constructing a relationship between ideas, casting the central idea into sharper and often unexpected perspective, by comparisons, analogies, etc. 31

Page

Imp - IMPLICATION: (s or f) Extrapolation beyond the given, projection from given data--typically by antecedent--consequent or hypothetical construction--to new point(s) of possibility. 31

Syn - SYNTHESIS: Spontaneous performance, tying in, integrating the current central idea with an entirely new point or frame of reference. May be a variation or reversal of a previous conclusion 32

Double-paired Ratings: The complex nature of verbal classroom interaction often requires the combination of more than one of the above described categories. Samples of the more common combinations are given in the appendix.

I. ROUTINE (R)

Management Structuring Verdict Agreement Self-Reference

Dunno Muddled Humor

This primary category includes the variety of performances--both verbal and non-verbal--representing typical aspects of the day-to-day direction, conduct, and/or personal reaction to what is said and done in class. Also included are those performances that represent verbal maneuverings typical in group discussion, which participants employ to modify the course or direction of discussion or shape the viewpoint from which they wish their remarks to be taken. The conventional and routine character of performances in this set of categories does not mean that they have no bearing upon or significance for the thinking processes shown in the class session.

Management (M)

Management has to do with the mechanics of the class session. Performances typically involve announcements about school or class affairs and/or personnel; remarks opening or closing class sessions; remarks sustaining or closing off current proceedings; invitations to speakers; requests, orders, instructions, procedural directions, assignments, etc. Also included here are such incidental or parenthetical comments and asides as are the recurrent trivia of group operation and which have no direct impact on current proceedings. The following types of performances are classified in this category.

Mq- Question. One acknowledges a request to speak, invites someone to speak, or calls upon the group at large to indicate whether or not they wish to ask or raise further questions on the topic at hand. / Note: T acknowledgements of S requests to speak--when T has not just posed a question--should be marked. Ordinary acknowledg ents of successive would-be speakers answering a question before the group may be ignored./

EXAMPLES

Mq T: Any further questions? (or) Any other points we ought to bring up now? (about tomorrow's assignment)

Mq T: Johnny, did you have a question?

Mq S: Miss Jones, may I ask a question?

Mq T: Go ahead, Billy.

Mq T: (interrupting own talk when S's hand goes up) Yes? (or) John?

Mp- Procedure. The speaker gives or asks for or about procedural directions to be taken or instructions to be followed by an individual or the group as a whole.

EXAMPLES

Mp T: Now close your books and put your papers away.

Mp S: Do you want us to do these things in ink?

Mp T: Now, Steve, you can be our secretary. (or) Steve, will you take down notes about the main points that come up in our discussion? (and) And you, Harry, I want you to get ready to pull the different maps down when we get to each country.

Mp. T: Do you want me to type up these notes afterward?

Ma- Aside. The speaker makes an incidental or parenthetical comment--typically signalled as an aside by a drop or shift in voice tone during the remark and by resumption of the original tone thereafter. The contest of the aside is usually trivial and has little or no bearing upon the course or content of current discussion.

EXAMPLES (Ma is underscored here to show its incidental place with-in on-going discourse.)

Ma T: ...and he was going ahead--oh, I nearly forgot this point--and

Ma S: So here is this man--now, what was it I was going to say--oh, yes, here was this man just standing there, and..., etc.

Ma S: (to teacher while another student is speaking) I'm running out of paper!

Ma T: (other student still speaking) Here, I'll give you some.

Mnc- Nose-Counting. The speaker calls for a show of hands as in making a tally or a canvas of those present. Occasionally the nose-counting goes on in connection with a request to express agreement or disagreement or to take a stand on some point. It is a standard teacher maneuver and conventially implies that the result of the tally may affect the subsequent course and content of proceedings.

EXAMPLES

Mnc T: How many of you saw that TV film last night?

Mnc C: (eleven hands up in class.)

Mnc T: How many of you heard that?

Mnc C: (only two hands up)

Rep T: OK, Dean, will you repeat that, please? (assumed result of Mnc)

Mfb- Feedback. A conventional signal by the speaker to the group, apparently checking on attention and typically given as a request for some sign of whether or not the speaker's comments up to this point have been understood and/or accepted by the group. / Not as common in student performance as in teacher's but not strictly a teacher-type maneuver./

EXAMPLES

Mfb T: Do you follow me? (or) Do you see this? (or) Are you with me? Get it? (or) Got that? (or) Do you read me?

Mfb S: So then you multiply by .30--right? (Mfb portion underlined)

Mfb T: Right!

Mfb S: And then I added up all these figures and got 7906.3--right?
Mfb T: Right you are!

Mw- Work. This is a non-verbal performance. It may or may not be accompanied by speech. It consists either of individual footwork or manipulatory activity, or in general seatwork or other activity by the class as a whole. Unless the performance occurs spontaneously in connection with something the speaker is saying, Mw is typically preceded, announced or called for by M or St performances. The Mw symbol marks tapescript passages involving activity that is something above and beyond the usual diet of just plain discussion. / Such activities are more commonly observed in science and math than in English or social studies classes./

EXAMPLES (Mw activity enclosed in parentheses.)

Sto/Mw T: Now watch what happens when I put it in water. (Removes blade from flame and dips it into water beaker.)

Md T: OK, take it over again, Kevin, only slower.

Sts/Mw S: OK--here I come! (Runs across the room at a slower pace; drops eraser again at designated spot.)

Mp/Mw T: All right, now you go ahead and write for a few minutes. (Moves from seat to seat around the room, commenting, marking a paper, etc.)

Mw C: (Class members busy writing at their seats. 5 minutes)

Structuring (St)

Structuring is a conventional engineering move which shapes or frames in advance the content and conduct of subsequent activity (verbal or non-verbal). The speaker structures either his own performance, that of another individual,

or in some cases, that of the group as a whole. Attention, viewpoint, attitude, and expectations are also implicitly focused by this type of performance. In the classroom, structuring is found to occur in the following forms.

Sts- Self-Structuring. A prefatory or preliminary move by means of which the speaker signals, indicates, or announces the point and purport of what he is about to say or do, or will say or do in the future.

EXAMPLES

Sts S: Well, I have two points to make. First of all, it is..., etc.

Sts S: Well, going back to what Bill said, I..., etc.

Sts T: Next I'm going to add this weight to the balance. (during lab demonstration)

Sts S: This is kinda off the point, but..., etc.

Sts S: Well, there are at least three reasons why that could have happened. First, it..., etc.

Sts S: Now I'm not quite sure if this is right, but..., etc.

Sts T: I am going to cover that point tomorrow.

Sto- Structuring Other(s). The speaker engineers the subsequent behavior or performance of another individual or that of the group as a whole. Sto typically conveys an implicit directive, and occasionally carries a note of warning or admonition. In some cases, Sto amounts to a tacit injunction to drop a subject, to postpone comment or further discussion, to cease or desist from doing something. Similarly, Sto may invite the individual or group to reconsider to re-examine what he or they just said or did, with the implication that the performances in question may be incorrect or ill-considered--that it is time to "take a reading." Sto also serves to prime the pump of discussion--by re-launching a question--to keep it going or to sustain discussion on an earlier-raised question, topic, or problem. / Sto differs from Mp or Md in its focus on the academic content or conduct of current activity, not on the merely procedural or routine mechanics of classroom operation. /

EXAMPLES

Sto T: Mr. Wilkins is going to show us now how the pendulum works.

Sto T: Nancy is going to come up here now and tell us about her trip.

Sto S: (chairing discussion) Betty can give her report on foods now.

Sto T: (chairing discussion) Tim, you seem to object to Jack's proposal, so why don't you take your turn now.

Sto T: Why don't we just drop that for the time being and go on with our regular discussion.

Sto T: Check that! (solution just chalked on board)

Sto T: Take another look at that. (or) Hold on, there--did you mean to say what you just said?

Sto T: OK, you can go ahead now, Jill, on that point about materialism.

Sto T: (pump-priming) OK, who has some more ideas on this? (or) Does anybody else want to add something here? (or) All right, let's have some more examples of a lever.

Stf- Future Structuring- A performance--most often that of the teacher--in which a forecast or announcement is made of something to be done, studied, or taken up by another individual or by the class as a whole in the future. (i.e. beyond this particular class session.)

EXAMPLES

Stf T: By next week, I think we'll be able to go over these points a little bit more thoroughly.

Stf T: That's a topic we'll get to when we take up the next unit.

Stf T: Hold that point Joe until our discussion on the Jamestown settlement tomorrow.

Stf T: Tomorrow we'll take up the question of how Jackson justified the Spoils System.

Stf T: When we get into our unit on force, you'll see how the concept of mass involve something more than just weight or size.

Stf S: Will we be studying this again next year?

Stf S: When are we going to get to the different kinds of bacteria and fungi?

Stc- Class Structuring- Exclusively a teacher activity, talking to the class as a whole, serving: (a) to focus class attention and attitude upon some point of emphasis or subject to be taken up; (b) to lay down preliminary groundwork--including items of information and specifications for treatment--for launching a question or problem; or (c) to probe, prod and push the thinking of the class--often by supplying leading hints or additional data--when the class seems to have missed the point or to be bogged down in some way in its dealings with the question or problem at hand.

EXAMPLES

Stc T: (attention focussing) Now, let's try to think of what our impressions or understandings are of what the Colonial period was like.

Stc T: (attention focussing) Let's just forget now that you read today's assignment and think back on where you were in grade school and what we have read and so on.

Stc Dps (laying groundwork for Ads-Exv) OK, now that we have decided that maybe we have the wrong impression of Colonial America, maybe our next question is why study it anyway? Why is it important? Why is it important to know this--what these colonists did? /Why--do you have any idea why it might be important to learn about Colonial America, Anne? (Ads-Exv)

Stc T: (prodding, probing, etc.) But maybe there is something that is even more significant than that.

Stc T: (prodding, probing, etc.) No, what I'm trying to get you to think of is a term--a term that we use when we talk about things having to do with making a living.

Verdict (Ver)

Verdict is a pronouncement upon deportment and/or upon the quality of an academic performance. It expresses either praise or reproach and is more often directed toward an individual than toward the group, more often rendered by teachers than by students. /Individuals' comments upon themselves are classified in S--the self category./

+ or - Ver- Positive or Negative Verdict. Teachers typically praise or derogate the quality of an academic performance in an impersonal way akin to giving positive or negative reinforcement. Student verdicts on academic performance of other students are rarely impersonal, and are almost never directed (in the reinforcement sense) at the teacher.

EXAMPLES

+Ver T: Now that's a good point. (or) That's an interesting point, Sam. (or) That was something really worth bringing in, here. (or) I'm glad to see so many hands up for that question.

-Ver T: Well, that's not a very pertinent idea to bring in at this point, Ned. (or) I think you'll find the facts to be otherwise, Tood. (or) I'm afraid that's not quite right.

+ or - Verp- Personal Verdict. (positive or negative). Occasionally teachers confer directly personal praise or reproach upon an individual or the group. This is usually done in connection with deportment when the verdict is negative, but it does occur in cases of academic performance and may be negative or positive. Students occasionally give direct personal verdicts on fellow students, but rarely if ever on the teacher. Negative student verdicts directed at class proceedings seem to convey a veiled or implicit personal verdict on the teacher.

EXAMPLES

+Verp T: You did a fine job, John. (or) Class, you've really made me proud. You all did a really good job on the test. (or) Well, I know someone who's done her homework.

+Verp S: Oh, swell! (when T says no homework for tomorrow) (or) Pretty sharp if I say so myself! (to another student who has just finished a deft performance with a metering device.)

-Verp T: Now cut that out! (or) Harry, put that pencil down and sit still! (or) Well, if you'd read your assignment, you'd have an answer. (or) Your papers were pretty messy. Next time I'll down-grade messy papers.

-Verp S: I don't see the point of all this. (or) Why don't we get something done for a change! (or) I don't see why we have to write such long papers. (or) Aw, gee whiz! That's too much!

Agreement (+Agr or -Agr)

Agreement represents a speaker's express or implicit acceptance, affirmation, or rejection of the content of something said by a prior speaker. Or the speaker invites expressions of agreement or disagreement. Occasionally a speaker will signal (by voice tone and by elliptical speech) that his acceptance or rejection is still pending. Agreement is never directed to procedure, behavior or deportment; hence permission-giving remarks or simple 'Yes' or 'No' answers to substantive questions do not fall in this category. Conventional head shakes or nods or shrugs of indecision are also taken to convey positive, negative, or pending agreement, when the context so indicates. Tacit or explicit concessions, as in conceding the point of an argument also count here. / Note: Since such expressions as 'OK' and 'All right' conventionally signal mere acknowledgment of something just said more often than genuine affirmation of it, such expressions should only count as Agr in the presence of explicit contextual evidence to this effect./

EXAMPLES

Agr T: Does everybody agree with that? (or) Do you agree with that? (or) How does every go along with this?

+Agr S: Yes. (or) Uh-huh. (or) Yup. (or) OK, you win! (to another S)

-Agr S: No, I don't.

+Agr S: Well, naturally, I think so too./ But... (or) Well, if you say so. (to another S)

Ra S: Lincoln really wasn't a first-class lawyer.

+Agr T: Of course he wasn't. (or) OK, I'll concede the point.

-Agr T: Well, now, I'm not so sure most of us would agree with you on that.

+Agr T: Well, now, I wonder--

+Agr T: Hum-m. How about that? / Let's see if..., etc.

Self-Reference (S)

The speaker expresses some comment or report upon or about himself. These performances represent conventional devices for conveying impressions of modesty, self-deprecation, tentativeness, uncertainly, or self-doubt. Speakers (both T and S) seem often to use S as a cautionary tactic to forestall or evade criticism, or to avoid being judged wrong or mistaken. Occasionally S appears to be offered as an excuse or as a token reply to a question for which the spea speaker is apparently either unwilling or unable to supply an answer. Self reference is almost never directly solicited in group discussion; hence its use seems to be more tactical than reportive.

EXAMPLES

S S: I'm kinda slow on the up-take when it comes to math.

S S: We didn't have that last year (not Rec in this context).

S S: Well, I'm not so sure I can remember the whole thing.

S S: I'm not sure I understand about those things, but..., etc. (with Sts)

S S: I'm not very good at this sort of thing, really.

S S: I'm afraid I'm not too well informed on that subject.

Dunno (Du)

The speaker indicates either by a shrug or by outright statement that he does not know the answer to a question asked him. Questions beginning with the conventional "Do you know...?" do not fall in this category, unless the speaker's state of knowing or not knowing is the explicit point of the question. (Rare)

EXAMPLES

Fs T: Who was the 22nd President of the United States?

Du S: Uh-- (shrugs, expresses bafflement)

Du S: Was it-- I don't know. (or) Gee, I just haven't any idea.

Du T: I'm sorry--I just don't have any answer for you on that one, Roger.

Du T: Now tell me--do you or do you not know who killed President McKinley?

Du S: I don't know. (or) I dunno.

Muddled (mu)

Verbal performance in this category--whether uttered as a question or a statement or reply--is one that either does not make sense and usually draws a blank response or a call for clarification; it often indicates the speaker's confusion or indecision regarding what to say.

EXAMPLES

Mu S: Lawrence had his Goldblatts out last week.

Mu S: Well, yes--no! It's just that--(trails off, looks baffled)

Mu S: Uh--he--well, he--no, I mean--(shrugs off in silence)

Mu T: Well, now, did he--do you suppose it?/ Well, let me try to..., etc. (Sts)

Humor (Hu)

Any utterance delivered with evident comic or humorous intent. Outright laughter by the speaker, accompanying his own or someone else's Hu is itself classified as Hu. General laughter from the class--usually in response to a humorous or accidentally funny performance--is also classified as Hu.

EXAMPLES

Hu S: What a change for Jim--from head shrinker to brain stretcher in eight years!

Hu C: (general loud laughter)

Hu T: OK, so he had this old battle axe (Elizabeth I) to contend with in 1588.

Hu T: I guess now we have poor Steve just about ready to fall out of the chair!

Hu C: (giggles, snickers, guffaws, etc.)

Hu S: I used to be conceited; now I'm perfect.

II. COGNITIVE-MEMORY (C-M)

Scribe Recapitulation Clarification Factual

COGNITIVE-MEMORY operations are taken to involve only such thought processes as recognition, rote memory, and selective recall. Verbal performances of this general type represent the simple reproduction of facts, formulas, and other items of remembered content. No complex or productive thinking processes are held to be evidenced or called for in C-M performances.

Scribe (Scr)

Scribe represents a variety of verbal or graphic performances done either to give the spelling of some word or expression or to emphasize or exemplify some word or expression. (Not to be confused with Tr--in CT--which involves integrative thought processes.)

EXAMPLES

Scr S: How do you spell that?

Scr T: (Writing and speaking) Economic? E-C-O-N-O-M-I-C.

Scr T: And so now you have the term "landed aristocracy." (writes "landed aristocracy")

Scr T: How do you spell "mobility," Nancy?

Scr S: M-O-B-I-L-I-T-Y. Mobility.

Recapitulation (Re)

The hallmark of performance in Re is explicit or assumed ("understood") replication. There is a going over or a return to something that was earlier said, read, done, or witnessed. Performances in Re range from activities as reading aloud, speaking from notes, reciting memorized material to the unrehearsed reproduction of previously acquired information. Recapitulation takes the following forms in the classroom.

Req- Quoting. The contents of questions or statements of this type do not originate with the speaker's delivery. Something is either recited from rote memory or read aloud by the speaker from a text, paper, notes, class worksheet, test, etc.

EXAMPLES

Req T: What is the first question on your guide sheet?

Req S: "What is the Spoils System?"

Req S: (reading aloud from text) "During the Jacksonian period, the idea of democracy became a guiding principle in the minds of men, leaders and followers alike."

Req S: (reading from own notes) So then when the Convention came up, Calhoun tried to make this deal with Adams.

Req S: (reciting) "To be or not to be--that is the question. Whether it be nobler in the mind to suffer the slings and arrows...," etc.

Rep- Repetition. The speaker gives or asks for the more or less verbatim restatment of what was said in an immediately preceding utternace. Repetitions include not only those made upon request, but also those which conventionally signal acceptance or acknowledgment of what the preceding speaker has said.

EXAMPLES

Rep T: Will you repeat that?

Rep S: I said: Who it is depends on when it happens.

Rep T: Now what did I just say was the main reason?

Rep S: Freedom of religion.

Rep T: Freedom of religion, yes.

Rec- Recounting. The speaker typically narrates an account of some past event, activity, or incident (in school or class, or out-of-school) which he has experienced or heard or read about, and which tool place outside the present classroom, and outside the experience of the present pclass group--as a group. Rec is often anecdotal in character, with an air of being offered as incidental commentary.

EXAMPLES

Rec T: When I was driving to school this morning, I saw an auto
Rec accident on Green Street near Wright./ Did any of you see it?

Rec S: No, but my father did. He told me so at lunch today. And he said it was someone on a bike who caused it.

Rec T: What did you learn about astronomy last year?

Rec S: We learned the names of the planets.

Rec T: Did you study about how to measure the distance of stars?

Rec S: No.

Rev- Review. Something is asked or brought up which is clearly understood in the present discussion to have been treated, discussed, or done earlier during the current or in some past session of this class. To count as Rev, the statement must either involve explicit reference to past in-class affairs or consist in an evident (on other grounds) return to what has concerned this class before. /Questions opening with "Do you remember...?" do not count as Rev unless there is explicit or clear contextual past in-class reference./ The essential difference between Rev and Rec is this: Rec concerns past extra-class reference; Rev concerns past in-class reference, with respect to this particular class group within which the speaker is a participant.

EXAMPLES

Rev T: What were some of the main points we covered in our discussion about Mercantilism?

Rev T: Does anybody remember what we said was the connotation of a word?

Rev T: Who can list for us what Mr. Van Loon said were the five main principles of Mercantilism?

Rev S: Well, first of all, he said that you should get large amounts of precious metals. And then you should have a favorable balance of trade. And then..., etc.

Rev S: Well, we decided to take the time machine to Brazil. So then we listed all the problems we might have--or might come up there. Then we broke into four groups and started working on solutions to the problems.

Clarification (CL)

Clarification performances call for or represent the restatement of something just said for the evident purpose of making the original statement clearer, more explicit or more precise. The original wording of the statement is rearranged, its point amplified, qualified or corrected in some way. No extension is made to a new or further point.

Clarification in the classroom takes the following typical forms.

Clm - Clarifying Meaning. These cases concern the intelligibility of something that has just been said. Meaning is clarified by either (a) requesting or giving a restatement or rephrasing of something that has just been said or (b) by adding informative details (not necessarily factual) so as to render the purport or content of the original statement more clear or precise.

Clm does not request an answer to "What did you say?" as in Rep. Clm asks essentially, "What were you trying to say (but somehow didn't get across to me)?"

There is no generalizing or conclusion drawing implied in Clm.

EXAMPLES

Clm T: Could you put that a little more clearly?

Clm S: Well, I don't mean the year--I mean the time of the year.

Rev S: Jefferson wanted to use his power as President to help the country, not just for personal gains.

Clm T: I'm not sure I understand what you mean.

Clm S: Well, he didn't want power just to be powerful himself. He wanted the President to have power so he could use it for the good of the country.

Req S: (reading from test blank) 'Race' refers to the physical characteristics of a group of human beings.

Clm T: All right. Remember, physical characteristics, not cultural.

As T: Who was it that was influenced by the fact that someone maybe was a god?

As S: Well, it was Montezuma, the Aztec chief. (As) And he thought
Clm Cortez and his men were the white gods they had heard about. (Clm)

Clq - Clarifying Qualification. In these cases the issue is the accuracy of something that has just been said. The speaker takes exception to the previous statement and qualifies it by either (a) "entering a rider" upon the remark or (b) entering an explicit correction. The implication of Clq is that the present speaker's acceptance of the statement depends upon this qualification.

Remarks referring only to the acceptability or correctness of a value judgment properly belong in the Evaluative Thinking category, and those remarks that relate to the acceptability of the performance are referred to the Verdict category.

EXAMPLES

Fs S: Yes, they can all be seen from the Earth at sometime during the year.

Clq T: Well, all right. But not all of them are visible with the naked eye.

Conl T: So the Democrats will have the majority in the House when the bill comes up.

Clq S: They will if they can get a quorum when the bill comes up.

Rev S: I said only about 25 farmers feed the United States because they have so much land and..., etc.

Clq S: I think he means 25 per cent.

Fs S: Light travels at 186,000 miles a minute.

Clq S: No! You mean miles per second!

Conl S: Since there aren't any harbors to speak of, there wouldn't be much fishing along there (northern coast of California).

Clq T: I think maybe if we were to look at it today, we would find quite a few fisheries up there.

Factual (F)

Performances in this category involve the statement or citation of one or more items (ideas, facts, events, objects, names, definitions, formulas, rules, principles, etc.) whose status is accepted and treated in the current discussion as a matter of fact.

F performances may occur when the questions posed call for answers which require simple reproduction of facts, formulas and other items of remembered content which are factual in nature. Often F questions require no more than a simple yes or no answer; in other cases they may require a sentence or two for an answer.

F performances may also occur in the form of a monologue, in the sense of reporting or instructing rather than in the sense of providing factual material for the purpose of answering a specific question.

Taking into account the "question-answer" and "monologue" types of performance, there are three variant forms in the F category.

Fs- Fact Stating. The straightforward request for a recitation of items taken to be matters of fact. Occurs in statements of past tense form or present tense form. [Not to be confused with Rev in cases of past tense; Rev concerns past in-class affairs, while Fs concerns what is or was the case irrespective of when or where it occurred in relation to the class session.]

EXAMPLES

Fs T: Does anybody remember what it is--the name we use to refer to the two end-portions of a bone or nerve?

Fs S: Proximal and distal.

Fs T: Who was the sixteenth President of the United States?

Fs S: Abraham Lincoln? (typical student quanswer)

Fs T: What is the Pythagorean theorem?

Fs S: The square of the hypothenuse of a right triangle is equal to the sum of the squares of the other two sides.

Fs S: The first five presidents of the United States were Washington, Adams, Jefferson, Madison, and Monroe.

Fs T: What changes came in India when Ghandi came to power?

Fs S: They began to use passive resistance against the British rule.

Fs T: What other changes came in?

Fs S: Women got more rights and could own property. (or) There was a religious revival. (or) England grew uneasy and made con-concessions.

Fd- Fact Detailing. These performances follow upon Fs and do not occur except following prior Fs performances, or other performances (eg., Asc, Asl, etc.) in which factual items were mentioned. Fd is a form of spontaneous low-order elaboration upon factual material. There is a detailing or further "spinning out" of what has been stated or cited, a sort of embroidering upon the original point without extension to a further point.

EXAMPLES

Fs S: Jackson was supposed to be a kind of impressive figure of a man and he had a fiery temper, too.

Fd S: And he had a head of fiery red hair.

Fs T: So after he got jewels and money from Queen Isabella, what did he do?

Fs/Fd S: Well, he started out for the New World. (Fs) He sailed in the Santa Maria--that was his flag ship--a real little ship, and he named it after the Virgin Mary.

Fm- Factual Monologue. Performances in this category are in the form of a monologue. These monologues--during which verbal exchange is conventionally excluded--are addressed to the class as a whole rather than to any individual. The discourse is informative in content and instructive in evident intent.

Typically, the teacher or student is addressing himself to a topic in the sense of telling what he knows or has found out about something rather than providing an answer to a specific question.

F monologues clearly understood to be based upon material introduced in previous class sessions will be classified as Review. F monologues which treat of extra-class events, are anecdotal in character and which take the form of "incidental commentary" will be classified as Recounting.

EXAMPLES

Ver/Fm T: All right, good. Now, let's get some other examples, here. Candy? (Social studies class. Students are giving reports on what they have learned about various colonies.)

Fm S: Well,--I had New France,--or the French colonies in Canada, and they-they--had many bodies of water where they could catch--seals and walrus, this type of thing, and they-they served--two-two really--thing--for-two things. They served as profit

and also as--they provided food. And they had--many furbearing animals also, and this also has--two good--I don't know exactly how to express it but they could--use these as wraps to--keep them warm, and they could also sell these for profit, and now--they had very good soil for crops, and they could grow corn and squash and pumpkins. And they also had--very good--lumber and trees that they could use to make their homes and--to make--to make boats and stuff, and they also had plenty of wild game.

Fm T: (In science class) It was Pasteur who--who worked out the serum for it but it was Koch who isolated the anthrax germ in pure culture just as he said the isolation of polio virus was--the first step in getting a serum (1 word). All right, Koch then gave us our modern technique for work in the laboratory. He gave us our modern methods of growing bacteria and we still use his methods. New methods have been added but we still use the basic methods of--Koch for growing bacteria. He gave us different types--he worked out different types of media. We'll talk about those in a few minutes when we get to media. And--if it had not been for very careful systematic work that he did we--bacteriology would not have progressed as it did. He gathered around him a fine group of men who went on even after his death with--considerable work. Leffer was one of them and Leffer's stain is one that we still use. Leffer was the first one to see a diptheria germ and then that paved the way for Von Behring to make the serum.

III CONVERGENT THINKING (CT)

Translation	Association
Explanation	Conclusion

Convergent thought processes are both analytic and integrative, and operate within a closely structured framework. Answers and solutions to questions or problems in CT categories are reached by reasoning based upon given and/or remembered data. This is considered true whether or not the speaker is solving a problem gives explicit verbal evidence of the use of a particular rule, formula or generalization process.

In classroom discourse, when a CT question or problem is posed, only one answer or solution is called for at a time because of the way the question is phrased. Not every classroom question calling CT admits of only one right answer (e.g., What is a necessary condition for a successful space flight by a human being?).

Because the information sought is so definitely specified, these questions or problems are "data rich" in their very structure or framework.

In determining whether the question involves CM or CT from the student, it is sometimes necessary to examine the context in which the question occurs. In looking at the context, attention should be paid to the following points:

1. Was the information called for in the question handled earlier during the discussion?

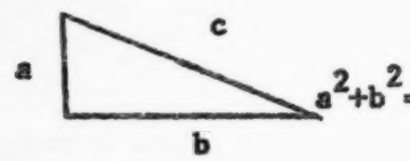
2. Did the manner of the student's response to the question give indication that the student was thinking rather than merely recalling?

3. Were there other contextual cues which indicated prior consideration of the ideas which would now make those ideas cognitive memory?

Translation (Tr)

Performance in this category involves a conceptual shift on the part of the individual between figural or symbolic content and verbal or semantic content. Either the verbal statement of something that has been expressed graphically is given, or something that has been named or stated in words is rendered graphically, or is pointed out on a map or diagram.

EXAMPLES



Tr T: (pointing to blackboard) What is that?

Tr S: That's the Pythagorean Theorem.

Tr S: The square of the hypotenuse equals the sum of the squares of the other two sides.

Tr T: (pointing to map) See, now, how the annual rainfall increases as you go eastward.

Association (As)

Convergent association involves a low-order integration of elements (ideas, objects, terms, facts, etc.) into a tightly structured relationship. In some As questions, one element is given and the relationship specified into which the respondent must place an element of his own selection. In other As questions, all the elements are given and the relationship stipulated; the respondent must show the way in which the given elements satisfy or fail to sayisfy the given relationship.

As involves likenesses and differences; degrees of comparison; and relationships of direction, spatial position and/or classification, etc.

EXAMPLES

As T: What difference in movements do we observe between stars and planets?

As S: Um--the planets move in orbits around their stars, but the stars don't exactly have orbits--they just wheel around in a galaxy.

As T: What is the characteristic that makes sloths and kangaroos and the wallaby all fall into the same class?

As S: They are all marsupials. (or) They all carry their babies in pouches.

As T: Here's one. Coffee beans are to coffee in the cup as--what--is is to sugar in the sugar bowl?

As S: Sugar cane. (or) Sugar beets.

As T: Compared to the birthrate figures of 1920, are we having more or fewer children per family in the United States today?

As S: Well, our birthrate is higher, but we've got fewer children per family compared to 1920.

As T: Where would Polaris be in relation to the Earth?

As S: Wouldn't it be straight up--over the North Pole?

As T: Yes. And where would Polaris be in relation to Ursa Major?

As S: Well, if you sight straight out along the line from from the star at the bottom of the Dipper--away from the handle--to the star that is the lip of the Dipper, the next big star you'd see is Polaris.

Explanation (Ex)

Classroom performances in this CT category deal with events and activities--with causes and effects, processes and procedures related to given results or outcomes.

Rational Explanation (Exr). Evidence is cited or called for to substantiate some claim or conclusion. Speakers ask or tell why X is (was or will be) the case, why X happened, why A (a possibly B, C, and D together) caused X, etc. Speakers give or call for reasons--statements of facts, general rules or principles, etc.--as evidence to explain the claim or conclusion in question.

EXAMPLES

Exr T: Why would you say the Jamestown settlers were unprepared?

Exr S: Well, because most of them were city people--they had no experience in doing things for themselves--they didn't know how to work with their hands.

Exr (Vp) T: So why do you think Jackson--if he were alive today--why would he be against a federal road-building program?

Exr (Vp) S: Well, he always felt the government should only pay for things--give out funds--that benefit the whole nation--not just one little area or local group of people.

Value Explanation (Exv). Reasons are cited or called for to support some value-based claim, proposal, or conclusion--to justify rather than to substantiate it. The matter to be explained (justified) may or may not be explicitly state in the course of the explanatory discussion.

EXAMPLES (compare with Exr examples on page____)

Exv (Ra) T: Why do you say that those men (Jamestown settlers) were irresponsible?

Exv (Ra) S: Well, they just stood around with their hands in their pockets and refused to work, even though they knew winter was coming on.

Exv (Ra) S: Yeah, and they didn't even care if there wouldn't be enough shelter for the women and children, or the sick people. They thought they were too good to do common labor.

Exv (Vp) T: So why did you say that Jackson--if he were alive today--would probably be unpopular?

Exv (Vp) S: Well, for one thing, he was against paper money, and banks, and all that. And people today wouldn't like it if he tried to close down the banks and take paper money out of circulation.

Note: The relevant difference between Exr and Exv is that, while Exr rests upon the factual truth and (assumed) testability of its evidential premises, Exv rests upon the acceptability (moral, social, practical, aesthetic, etc.) of its value-based premise.

Narrative Explanation (Exn). These performances involve a serial or step-by-step descriptive account of how a given process or operation occurs or is carried out, of how some mechanism works, of what procedure must be (or was or would be) followed to effect a given end-result or product, or of a series of events leading up to a given outcome, and the like.

EXAMPLES

Exn T: How do beavers build a dam?

Exn S: Well, they find a narrow place in a stream, and then they chew down a lot of small trees--with their sharp front teeth--and they drag these trees out into this stream. And then they pack mud and rocks and roots and branches around these trees, and..., etc.

Exn T: Okay, now I'm curious to hear you tell us, as best you can, just how you thought out and worked out the answer to this problem.

Exn S: Well, I tried the first problem, and I worked it out and I got 56. And then I put the numbers in boxes that I started out with to see if it would make 56.

Conclusion (Con)

Performances in this category call for or state some point (idea, fact, generalization, principle, or consequence) that may be derived from or follow logically from the array of points that have been treated in foregoing discussion.

Generalization (Gen). Here the elements of a prior verbal performance (one's own or another speaker's) are integrated by means of a slightly more general reformulation. Gen "wraps up the point" with a kind of punctuational emphasis, an underscoring of the point that was made; it often has a didactic flavor.

Since Gen expands a point but does not extend to or consist in a new, further point, it is narrower in scope than the other Con categories. Moreover, Gen encompasses only what one speaker has stated. It is more commonly a teacher performance, and is more commonly given outright, rather than requested.

S: Well, there was an awful big change from town life. (Ads) And they had to change from having a lot of 'em to just one store--just have a general store. (Elf)

Gen T: So you feel that the majority of the people who came--came from the city in England and then they found themselves in a rural community.

S: Well, freedom to earn money. (Ads) In England you had to do certain jobs that they gave you--that the king said--do certain things that--(T moves in)--(Elf)

Gen T: So this kind of freedom would be what kind of freedom? What is the general term we would use for this? (Gen in this context; otherwise, As)

Gen S: Freedom to earn money.

T: All right--or economic freedom. (Clm)

T: All right, what might be a synonym that we might use for a state--that might fit in with what Mr. Van Loon said? (As)

S: Countries or nations. (As)

Gen T: In other words, states sometimes mean a political division which is comparable to a nation.

Summary Conclusion (Cons). Cons integrates by giving a summary reformulation of the class discussion, the contents of a unit of study, a text chapter, a story, the elements of a theory, etc.

Cons T: Can you sum up in one sentence what you think was the main idea behink Alan Paton's novel, Cry, the Beloved Country? (Cons.Ra)

Cons S: That the problems of the blacks and the whites in Africa can only be solved by the principle of brotherly love, and in no other way. (Cons.Ra)

Cons T: Now, then, what were all the factors at work here in Jamestown?

Cons S: Well, they lacked work experience; they were used to being waited on; the climate was strange to them; and they weren't facing up to the threat of starvation, even when it began to get cold.

Cons T: All right. Now we have the picture, then, of Mercantilism. (Stp) The policy that we want to be self-sufficient; we want to get as much money as we can; we want to have this wealth in our treasury; we have the government interference over the control of the treasury; we want a favorable balance of trade, and so forth.

Logical Conclusion (Conl). In these performances the evident focus is upon the logical force of the conclusion. Various elements of a prior discussion or of a single prior statement serve as the closely structured basis for drawing a logical (or factual) implication or consequence.

EXAMPLES

Conl T: And this is one reason why the idea of Mercantilism was so important at this time of war. And so these countries wanted to be self-sufficient. Jane?

Conl T: So what would all these things point to--that Captain Smith would have to consider?

Conl S: That Jamestown was in a pretty bad way, and that the colony might starve out through the winter if something weren't done about it.

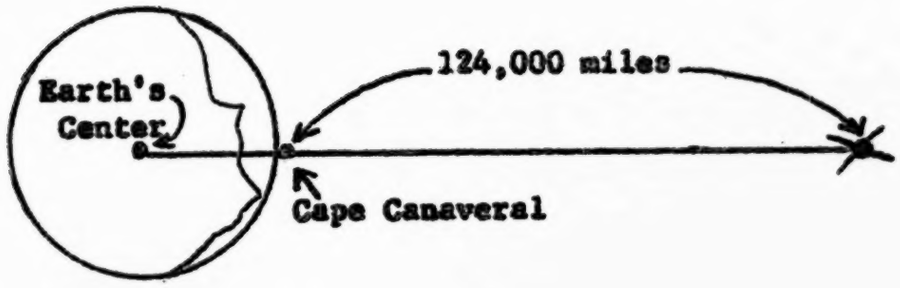
After combined with Con material is information which is also Ex. When the steps of the conclusion--reaching process are spelled out by the speaker, they constitute Exn; when the resulting conclusion is given alone, it is Conl.

EXAMPLES

Conl T: If the sides of the rectangle are 24 feet by 6 feet, what is the area?

Conl S: 144 square feet.

Conl T: (drawing on board; see below) Let's see if you can work this problem. Here's a satellite--Sputnik or something--and if I were able to get a scale under this thing, out at 124,000 miles, I would find that it weight one half (½) pound. (Stp) Problem: What does this thing weigh--a big sattelite--but what does this thing weigh if I have it back at Cape Canaveral and put it on a scale? (Conl)



Conl S: 128 pounds.

Stp.Exn T: OK. Now I'm taking you way out--not to the vicinity of the Moon--but I'm shooting you way off in another direction. Way, way out--so that I'm sending you up with these two objects. (holds up two discs of approximately equal size; one metal, one rubber) Now, they are both about the same size, but down here on Earth, this metal disc weighs more than the rubber one. (Stp.) OK, then, how could you tell--without a scale--how could you determine, way out in space--which one would weigh more if you weighed them on Earth?

Exn.Conl T: Well, you could put these two objects a certain distance apart in space. And then, if you let go of them, they would attract each other--go together. And if one of them had more stuff in it than the other, they would meet on an uneven side. And then we would have the heavier one on one side--it would be farther from the middle than the lighter one.

IV. EVALUATIVE THINKING (ET)

Unstructured Structured Qualified

Evaluative thinking deals with matters of value rather than matters of fact and is characterized in verbal performance by its judgmental quality. The speaker offers, calls for, or responds with a judgment of something in terms of its desirability, worth, acceptability or probability of occurrence. The dimensions here involve the degree of prior structuring on the evaluation statement and whether or not it is a clear statement of personal position rather than a counter claim or modification of a previously stated value.

Unstructured

An unstructured evaluation occurs when the speaker is not restricted as to the range along the dimension being judged and/or limited as to the choice of the dimension upon which the evaluation takes place.

URa- Rating. This consists in the speaker's calling for or responding with a value judgment (good, bad, true, unusual, interesting, important, beautiful, etc.) on some item (idea, object, action, person, proposal, etc.) in terms of some scale of values that is provided by the speaker. The range of response is very large because of the cognitive looseness of the question or proposition.

EXAMPLES

Ura T: What do you think of modern painting?

Ura S: Is the UN doing a good job?

Ura S: Do you think that "A Tale of Two Cities" was a good book?

Ura T: Did you like Margaret Mead's "People and Places?"

Ura S: Yes, I thought it was very interesting.

Ura T: What do you think of MacArthur as a general?

UJu- Judgment. The speaker calls for or responds with a value judgment where the evaluative dimension to be used has been presented by previous speaker or speakers, (even though it may have to be defined further).

EXAMPLES

Uju T: Was Ahab a heoric figure?

Uju T: In terms of his relations with Congress, was Roosevelt an effective president?

Uju S: Was the decision to produce the Atomic Bomb a wise one, considering the present situation?

Uju S: Did the UN do a good job in the Congo in keeping the peace?

Structured
(formerly Vp, Vc, Evc)

A structured evaluation occurs when the person doing the evaluation has been presented with a limited range or scope for his judgment. This limitation may consist of a direct call for a probability statement along a certain dimension or in an either/or choice situation.

SVp- Structured Probability. The speaker is typically invited, or offers on his own, an estimate or speculative opinion as to the likelihood of some occurrence or situation. His estimate may concern past, present, future, or "contrary-to-fact" propositions.

This category is most similar to Imp (Divergent Implications). The difference between them is related to the degree to which the choice is limited, since a limited choice demands Evaluation. If a child is asked to state 'What is the most likely consequence of a Chinese Revolution?' he has to follow this sequence.

a. Think of all possible consequences of the proposition.

b. He must order these in degree of likelihood.

c. He must pick out the top rated item on that list.

It is clear that step a. is a divergent operation while b. and c. are evaluative operations. When steps b. and c. are obviously a part of the request then it should be rated SVp. If the other element (such as divergent operations) is clearly present it should be rated SVp.Imp.

EXAMPLES

Imp T: What do you think Khruschev could do in Berlin?

Imp.Svp T: What are the most likely things Khruschev will do in Berlin?

Svp T: Is it likely that we will have a hard winter?

Svp S: If the crickets chirp loudly we will.

Svp T: What are the chances this experiment will work?

SVc- Structured Choice. The speaker calls for or declares his position as a choice between alternatives. He is typically dealing with questions demanding an "either-or" choice. Teachers will sometimes use this as a gambit to start a discussion, not really expecting definite answers but using it as a take-off point for further elaboration of ideas or values. Two or more alternatives must be present. If the teacher is asking for a Yes or No answer, it is considered in the Agreement category. (i.e., T: Do you agree that Jackson was a strong president? S: Yes.)

EXAMPLES

Svc T: Which man was the stronger president, Adams or Jackson?

Svc S: Jackson.

Svc T: Are we going to have better educated or poorer educated people in Civil Service?

Svc S: With the new tests given to job applicants, we're bound to get better educated people.

Qualification

This represents the expression of disagreement with established values previously expressed in the class situations. These may range from a mild correction or dispute over a minor point to a direct contrary judgment. Disagreement about the correctness of a fact would be considered under Clq.

Qj- Qualified Judgment. This consists of offering a rider to a previous value statement or probability estimate. It may often represent a polite way of disagreeing or can be an objection to part of the previous notion that has been presented. It also includes attempts to get previous speakers to be more precise about the value dimensions being discussed. (i.e., URa T: Was Hoover a good president? Qj S: It all depends on what you mean by good.)

EXAMPLES

Uju T: Do you think that the Algerian crisis has damaged De Gaulle's prestige and power in France?

Qj S: It all depends on what you mean by prestige.

Uju T: Some people claim that you are actually conciously aware of why you prefer, for example, to wear bobbysox.

Qj S: Well, I think sometimes we are aware of it, but most times we just naturally do it without thinking.

Fd.Ura T: And we don't have anywhere near this amount of rainfall. So this might be a difficult problem.

Qj S: I know, but if they don't they could conserve at least some of the water.

Q-C- Counter Judgment. The speaker declares a directly opposed position with respect to the value judgment or position of a previous speaker. In the absence of a previously declared position, a negative statement does not count as a counter judgment but is classified instead as URa or Uju.

EXAMPLES

Ura S: How smart you are depends on genetics-on how smart your parents are and their parents are and their parents before them.

Q-j S: Oh, no it doesn't-it depends on your environment and how much education you've had a chance to get.

Sts.Q-j S: Well, I disagree with Jerry's statement that 'All men are created equal'.

Ura S: The TVA was a great benefit to the people of the area.

Q-C S: No, it wasn't; it is creeping "ocialism!

Note: Closely allied categories to the Qualification area are Agreement and Verdict. If the speaker declares an opposing position it is termed Counter-Judgment, if it represents merely disagreement without a further statement of a different value position then it is classified under-Agr (Negative Agreement). Examples of the differentiation are given below.

EXAMPLES

R S: I think that Rock Pile is a good actor.

-Verp S: You are out of your mind.

-Agr S: He is not!

Q-C S: I think that he is a very poor actor.

Evaluation Overlap

One serious classification problem lies in the unquestioned overlap between the Evaluation category and the Divergent and Convergent areas. For instance, even a simple Arithmetic problem may involve the Evaluation process where the individual must decide the relative appropriateness of alternative answers. The question "What sort of things would you take with you to a desert island?" while classified under Divergent Thinking includes an obvious Evaluative operation prior to the delivering of the Divergent product.

As a possible policy to facilitate classification a major differentiation will be noted between Implicit and Explicit request for Value judgments. For instance, the question below receives the following ratings.

EXAMPLES

Ads T: Name some things you would want to take back with you to the Revolutionary days.

Ads/Ra T: Name the important things you want to take with you to survive on the moon.

In short, the value dimensions (importance, goodness, appropriateness, etc.) must be explicit to merit a classification of Evaluation. If the evaluation is present only through inference it will be classified according to the major dimension present, <u>with the following exception</u>.

A request for a limited number of choices is regarded as demanding an evaluative operation on the part of the respondent and will be rated as such.

EXAMPLES

T: Name three things you would like to take with you if you returned to Revolutionary days.

In order to respond appropriately the answer must follow the succeeding sequence.

a. A listing of all other possibilities (Divergent Operation)

b. A ranking of these possibilities in order of importance (Evaluative

c. A statement of the top possibilities Operation)

The last two steps require a classification of Evaluation.

V. DIVERGENT THINKING

Elaboration Divergent Association Implications

Synthesis

Problems and questions which elicit divergent thinking provide for its operation within a definite but somewhat "data poor" framework or structure. The respondent is put "on his own" within this structure, free to range broadly and flexibly enough in his thinking to select and/or construct a large number of possible ideas, associations, implications; of which no single one could be predetermined as the uniquely right or correct answer. The individual thus generates his own further data (ideas, associations, etc.) in producing his response(s) to the question or problem at hand.

The symbols for coding divergent performances that have been "set" by prior questions or problems posed (as above) are followed by a small s (eg., Ads). Spontaneous or freely given performances are followed by a small f (eg. Adf).

Elaboration (El s/f)

J.P. Guilford states (Personality, p.389) as the root notion of elaboration: "The ability to complete a given outline or skeleton form. A factor found in a study of abilities believed to be involved in planning was called elaboration. It pertains to the specification of details that contribute to the development of an idea or the variations of an idea." In the classroom, elaboration is typically found in some form of illustrative treatment of an idea or situation being discussed; examples-- often concocted on the spot-- are given or requested. The point being treated is therefore expanded, but the perspective from which the point is being considered remains unchanged.

EXAMPLES

Els T: Okay, take that a little further.

Els S: Well, for example, the South favored a high tariff on cotton imports so they could make a bigger profit on their main case crop--cotton.

Els T: Well, would you put that now more in your own words? (favorable balance of trade)

Els S: It's like--well, for instance, you keep exporting more than you import from a country, so they keep owing you money. It's favorable to you that way.

Elf S: (Context: Financial gain as reason for European colonization of India) Well, when we were first studying about the United States and how it got started--remember that at that time everybody went exploring for spices?

Divergent Association (Ad s/f)

Performances classified as divergent association give the respondent freedom to select a related idea, or a relationship between two or more ideas, one of which may have been previously treated in the discussion. The relationship produced is typically a comparison or a contrast; often a new, different perspective is brought out as a result of the comparison. A special case of Ad is seen in the speaker's construction of an illustrative analogy or simile to bring out the central idea he is conveying.

EXAMPLES

Ads T: What comes to mind when you think of Plymouth Colony?

Ads S: Well, there-- to me it seemed like a time of suffering and hardship.

Ads S: Well, the only thing I can think of is it seemed like every time you turned around, all of a sudden there was a war.

Clm T: You say there might be a population explosion over the continent?

Adf S: Yes-- well, I mean it would start at one spot and spread out from there-- just like if a big bucket or container was suddenly dumped over and the water would spill out and spread out all over.

Rec S: (telling what he has found out about silk worms) And the moment it starts wiggling (class laughs), an extra piece of silk which would be sort of a cord-- sort of on a cord, and this will-- it just splits the end open.

Adf S: Like a bandaid!

Adf S: Like a parachute!

For further examples, see Synthesis section.

Implication (Imp)

Performance in this category involves construction of antecedent-consequent relationships; consequences or antecedents are projected from given data to data not yet explicitly considered; the possible bearings or implications of given items (ideas, situations, events, actions, etc.) for not yet specified items are sought, "seen", or postulated.

EXAMPLES

Imps T: Let's pretend the English didn't defeat the Spanish in 1588, and Spaniards still ruled the waves. Now what might have happened differently than what did happen-- if the English had not defeated the Spanish then?

Impf S: I wonder what Spain would have done if the Pope had given Portugal the western side of the Line of Demarcation.

Imps T: What are some of the ways a person might communicate when he finds himself unable to speak or understand the language of the people he meets in a foreign country?

Imps T: What are some of the possible explanations that we might come up with for the disappearance of the Roanoke colony?

Synthesis (Syn)

Synthesis denotes a spontaneous, self-initiated performance, by the student who flexibly "takes off" on the basis of the central idea of some currently treated point or conclusion under discussion and proceeds to transform or integrate it to some entirely new point or frame of reference. The impact of "newness" is due in part to its being an unexpected--though not necessarily irrelevant--tie-in with current discussion. Sometimes the new viewpoint may appear as a reversal or variation of the central idea previously considered.

EXAMPLES

Ads T: How many different ways can you get 12?

Ads S: 4 + 8; 6 + 6; 16 - 4; 48 /4; etc.

Syn S: You can count to nine in the base 10 number system and that'll give you 12 in the base 6 number system.

Syn S: (In a discussion about the 15th century as the Age of Exploration.) It looks like we're moving into another Age of Exploration today, only this time it'll be new worlds instead of the New World!

Syn S: I can see the whole question of civil rights coming up again when we start colonizing other planets.

PROCEDURES FOR MARKING TAPESCRIPTS

Breaking Tapescripts into Units

Before classification, the tapescript is broken down into units for tabulation and analysis. Successive individual utterances are marked off in A-G category units, each break being indicated by a diagonal or "slash mark." One speaker's utterance may contain one or a series of these units. (See sample tapescripts, pp. 43-50). Breaks are always made between utterances of speakers, since it is assumed that two people do not participate in the same unit of performance.

Breaks between units are made upon the basis of a distinct shift, in type of performance, from one category or sub-category to another. To avoid drawing over-fine distinctions among the more subtle shadings and shifts that can be found within a single performance, it is best to make the minimum number of category breaks within a given utterance, and to retain as one unit whatever can be taken to represent no marked shift to another category of performance.

General Rules for Breaking Tapescripts

1. The tapescript will be broken wherever there is a demonstrable shift from one thought category to another, i.e., from C-M to DT or from Clm to Clq.

2. In general, the aim is to make the minimum number of breaks.

Rules for Handling Specific Situations in the Breaking of Tapescripts

1. Situations which always require a break in the tapescript:

   (a) STRUCTURE/CONTENT. Always distinguish Structure (Sts, Sto, Stf, Stc) from content.

   T: I want you to help me with the labels that I'll put on this diagram./ What are the parts of this bacterial cell?

   S: Well, I have two points to make./ First, I don't think Tolstoy was a very imaginative writer. Second, ...

   (b) CLARIFICATION/EXAMPLE ELABORATING ON CLARIFICATION. Always break between clarification of a statement made by a prior speaker and an example elaborating on the point.

   T: You say there might be a population explosion over the continent.

   S: Yes--well, I mean it would start at one spot and spread out from there--just like if a big bucket or container were suddenly dumped over and the water would spill out and would spread out all over.

(c) STATEMENT/CONCLUSION. Teacher or student gives facts, associations, etc. and ends with a statement that serves to summarize or "wrap up."

T: (In social studies class) All right. And what kinds of problems are we faced with now? For instance, we discussed --well, who owns the moon, and who--could--should be first person there have the claim to it or not, or how is it going to be controlled? It is true that we don't have five or ten men who are <u>on</u> the moon now, just waiting to decide who's going to have political control over it. But this is something that we can see is going to happen pretty soon, isn't it?/ This is really an era of colonization, too.

(d) TEACHER/CLASS. Occasionally, the teacher's discourse is interrupted by comments or activities initiated by a student, by several students or by the class as a whole. These student or class responses are always set off on the tapescript <u>except</u> for the occurrence of incidental class laughter which does not change the direction of the discussion.

T: Maybe I should give you some harder ones./ (Class: Harder! Oh, no!)/ Well, I think that you need some harder ones so I'm going to give you some.

T: (Discussion of hosts and parasites in science class). Well, here we're invited out for dinner. The people you're eating off of are your hosts, aren't they? (Class: Laughter) That is your host. And so the same thing is true here.

(e) QUESTION/NO RESPONSE. When the teacher asks a question to which the class does not respond, and then asks a further question, a break is called for at the end of the first question with a class <u>Du</u> interposed.

T: Who was the fifteenth President of the United States?/ (Pause. No response from class.)/ All right then, do you know what part of the country he came from?

2. Situations for which <u>no break</u> is indicated on the tapescript:

(a) EVALUATION-JUSTIFYING EXPLANATION. Teacher or student evaluates something and follows immediately with an explanation justifying the evaluation.

S: Well, I think its a good idea. I mean, everybody <u>has</u> to work --I mean, if you just sit around all day and don't work, well, that's not fair to others.

(b) ADDING TO QUESTION: Teachers sometimes ask a question with which they will then be partially dissatisfied. They will then add to the question providing additional information, asking it in a slightly different manner to give the students a better opportunity to respond.

T: Now, why is it important that we have this medium stay solid? Can you think of any reason why we want a liquified or solid medium? One that stays solid at room temperature and at the temperature of the incubator, Laura?

(c) PRELIMINARY REVIEW FOR A QUESTION. The speaker, generally the teacher, sometimes gives a sentence or two of brief review as a preliminary to building a question. Whether the review comes before or after the question, no break is indicated.

T: We learned the parts of a plant cell and of an animal cell. Now, what are the parts of this cell that we should put on here? (Referring to blackboard diagram).

(d) USE OF VISUAL AIDS. The speaker may refer to a map, diagram, picture, model, etc. which is before the class, pointing out some particular aspect for their attention.

T: This country is in the temperate zone. Most of the land is suitable for agriculture of some kind. However, in some areas there isn't enough rain to produce crops. On this map (refers to wall map) the colors indicate the amount of rainfall in different areas.

(e) SELF-REPETITION. Sometimes a speaker will repeat himself in the same utterance; in a semi-stuttering fashion. When this occurs no breaks will be made between the repetitions.

T: Nope, the French. The French did. The French started.

Episodes and Monologues

The A-G category units are designed for use in the study of individual behavior in the classroom. It is also possible to study patterns of group interaction behavior. Once a tapescript has been broken up into A-G units, it can be readily marked off into Aschner units of group verbal interaction, episodes and monologues.* An episode represents a completed verbal transaction between two or more speakers, in which some point (question or statement) is launched in the discussion, meets with responding comment(s) and is then closed off or dropped as the speakers move on to a further point. The monologue represents a "solo performance" of a speaker addressing the group, during which responding comment is conventionally ruled out as inappropriate. For example, a lecture, a sermon, or an oration on our tapescripts--represents a monologue. The episode merely marks the conventional "creases," the spates in the typical ebb and flow of a group discussion.

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*The criteria for Aschner interaction units are set forth in M.J. Aschner, The Analysis of Classroom Discourse: A Method and Its Uses (Unpublished doctoral thesis, University of Illinois, 1959. Available on microfilm); and in Smith Aschner, and Menx. A Study of the Logic of Teaching. (Bureau of Educational Research, University of Illinois, Urbana, Illinois, 1959).

On the tapescripts, breaks between A-G category units and Aschner interaction units coincide at specific points in the running dialogue. These coinciding points may be marked by a double slash-mark, and the larger interaction units thus prepared for later analysis and tabulation. The sample tapescripts presented in the Appendix have been marked off into Aschner units.

Additional Policies for Use of Symbols

1. Multiple Symbols:

Because spoken discourse is a complex phenomenon, a single category unit may occasionally warrant a double classification and so may receive two category symbols. This double-coding reflects a fairly common feature of spoken discourse; namely, that a person may do two things at the same time with one statement. Consider these examples:

T: (acknowledging Dick's raised hand) All right, Dick?

Dick: Well, I disagree with Tom's idea that you can tell races apart by how tall they are./ In the first place,...etc.

In Dick's first statement we have a case of self-structuring (Sts) which is at the same time an instance of counter-judgment (Q-C). Dick has announced what he is about to discuss, and with the same set of words, he has declared himself in opposition to something Tom had said earlier in the discussion. The two facets of Dick's performance are distinguishable but hardly separabld. The double coding of the unit captures both features of this rather complex though not uncommon, instance of discussion behavior.

T: Why might you find yourself more ready to move to a new town than to stay put in the same place? (Exv·Ads)
(Calling for a justification of a possible preference, structuring for divergent association at the same time.)

S: Well, I might be a banker and maybe stole a lotta money from the bank, and maybe they've started to get suspicious. (Exv·Ads)
(Responding to Exv·Ads)

S: Well, the French and English came for freedom and to get land, while the Spanish came for adventure and to get rich. (Rev·As)
(Responding to Rev, giving As at the same time.)

Nancy: Maybe he could get a better job if he had that kind of experience. (Exv SVp)
(Responding to Exv as to why someone would be better off as a result of training in spectroscopy, doing so by offering an estimate of the advantages possibly resulting from that training.)

S: I think that the Russian will lose out to the Chinese because there are fewer of them. (Ura.Exr)

S: The answer should be in the millions since you are multiplying two three digit numbers together. (Svp.Exr)

Additional Symbols for Marking Tapescripts

The following symbols serve to mark particular features of discussion and/or of the tapescript itself which we wish to note.

u-Name: = Speaker uninvited. A student enters discussion unbidden.

t-Name: = Speaker tagged. Occasionally the teacher calls upon a student who has not volunteered, by raising his hand, or otherwise signalled his desire to speak.

?-Name = Identity of speaker not certain.

B: = Boy speaking; identity unknown.

G: = Girl speaking; identity unknown.

S: = Student speaking; sex indeterminate.

X-Name: = Utterance unclassifiable, insufficient data.

Class: nv = No volunteers. Following question addressed by T to whole class, except in the case of NC.

Class: symbol = All-class, or group response. (e.g., Class: Hu)

Speaker: symbol-- = Performance interrupted or incomplete, or pauses in discourse. Symbol followed by a dash.

Speaker: ! symbol = Exclamation, interjection, very emphatic response. Rare but especially useful on flow charts.

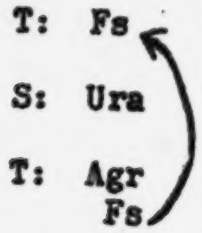
Speaker: (?utterance) = Exact wording in doubt. Parenthesis enclosing and question mark preceding doubtful words or phrases.

Additional Symbols for Marking Flowcharts

Past Reference

Exv, Ura ⤴ An arrow drawn to a previous utterance indicates that the present speaker is referring to that past statement. This symbol is used only when the point referred to has been replaced by other topics and this is an attempt to return to the previous point.

Interrupted Discourse



Discourse flow is sometimes interrupted, either by other speakers or by the random thoughts of the speaker himself. When the speaker continues and finishes the initial topic, this symbol indicates that the two or more entries on the flowchart really represent the same thought and will be counted only once in the analysis of the class session.

Off the Topic

Ura^{o} Occasionally an answer will be given to a question which is decidedly off the topic and not responsive. It will be noted by the above symbol.

Speaker: symbol+ = Superior performance. Category symbol followed by a plus sign.

Speaker: symbol- = Poor performance. Category symbol followed by a minus sign.

Speaker: -symbol = Negative response. As in -Ver or -Agr, or in absence of response to NC

Speaker: +symbol = Positive response, as in +Ver.

Speaker: symbol = Question being asked by speaker, to which reply is expected. (Underscored symbol)

Classification Distinctions

Some of the categories seem to overlap or relate closely to others. A further distinction is drawn here between the categories where the most difficult decisions are made.

A. Convergent vs. Divergent Association

As How were the Plymouth and Jamestown colonies alike?
Ads What comes to mind when we think of the Plymouth colony?

Difference: 'As' specifies both the items to be related, and the nature of the relationship. 'Ads' is very open, allowing any relevant, possible idea to be related.

B. Divergent Association and Elaboration

Ads How many characteristics of other animals remind you of marsupials?
Els Give us some examples of Marsupials.

Difference: With 'Ads,' the student is given freedom to select the nature of the relationship he wishes to discuss. With 'Els,' the nature of the relationship has been specified. The student is free to build upon or expand that relationship.

C. Unstructured Rating and Value Explanation

Urs People and Places is the best book I've ever read.
Exv Why is Margaret Mead's People and Places worthwhile reading?

Difference: Urs assigns value. Exv justifies the assignment of value.

D. Translation and Scribe

Tr (On Board: 12x 12x 12x 12) That's a square.
Scr Four times twelve (T writes this on board)

Difference: 'Scr' is a written or spoken reproduction of preceding material. After the presentation of something in one type of content, 'Tr' follows with interpretation of it which takes the form of another type of content.

E. Divergent Implications and Structured Probability

Imp What would happen if we landed on the moon tomorrow?
Svp What do you think our chances are of landing on the moon tomorrow?

Difference: 'Imp' asks for possible results or consequences of an event. 'Svp' asks for an estimation of the likelihood that an event will take place.

F. Summary Conclusion and Synthesis

Cons So we divided 17 by 4, found a quotient of 4, and a remainder of 1.
Syn That's 4 times 5 with a deficit of 3, or 41 in the 4 base system.

Difference: 'Cons' summarizes and integrates a series of immediately preceding ideas, remaining within the established frame of reference. 'Syn' is an application of a central idea (which is not necessarily the result of a Conclusion) in an entirely new frame of reference. 'Syn' is of relatively rare occurrence.

G. Clarification Qualffication vs. Qualified Judgment

Clq Yes, that bacteria is pneumococcus--but it is usually called diplococcus pneumoniae.

Qj You might say Jackson was a stronger president than Adams, but it all depends upon what you mean by "strong."

Difference: Both statements offers a rider to a previous statement: the 'Clq' to a factual statement, 'Qj' to a value statement.

H. Meaning Clarification and Fact Detailing

Clm So you think that the majority of the people came from a city in England, and settled in a rural community.
Fd One of them came from Birmingham!

Difference: Both of these add information. 'Clm' renders something previously said more intelligible by adding or rephrasing information. 'Fd' adds information which may be superfluous. Frequently the context will make the differences clear.

I. Self-Structuring and Self-Reference

Sts I have two points to make.
S I'm not an expert on this topic, but...

Difference: Both of these are prefatory remarks referring to self. 'Sts' lays out the sequence to be taken up by the speaker. 'S' is a self-rating, often referring to the speaker's judgment of the limits of his own capability or knowledge.

J. Negative Verdict and Counter Judgment

-Ver That's not exactly the point that I was trying to emphasize.
Q-c Lincoln was not a stronger president than Jackson!

Difference: Both statements follow a preceding discussion point. '-Ver' simply signals disagreement as to the correctness or appropriateness of a previous statement; 'Q-c' offers a value statement which is in opposition to one previously given (often URa or UJu)

K. Management and Structuring

Mp Close your books now.
St Now we'll go back to the point we discussed yesterday on colonialism.

Difference: Both kinds of statements are directions. 'Mp' is used to carry out customary classroom routine; 'St' always sets the scene for thought content to follow, either immediately or in the future.

These examples by no means exhaust the possibilities. As further difficulties arise through the experience of judges other examples will be added as an appendix to the Classification System.

A-G TAPESCRIPT FLOW CHART

Tapescript Social Studies, IA-2

Rater & Date Consensus - 1962

Pages Covered 1

CATEGORIES

Page No.	Resp. No.	Speaker	R	C-M	CT	ET	DT	Notes
1	1 a	T		Rev				
monol.	b		Stf					
	c			Rev				
	d				Exv			
Episode	2	t-Harry			Exv			
	3 a	T	Vert					
	b			Clm				
	4 a	Georgianne				Ura		
Episode	b					Ura	Adf	
		T						
	5 a				Gen			
	b			Rev	Exr			
Episode	6 a	Kevin		Rev				
	b			Rev				

SAMPLE FROM JUNIOR HIGH SCHOOL SOCIAL STUDIES TAPESCRIPT

(See Sample Flow Chart, page 42.)

Monologue

T: //All right, yesterday we were just examining some of our thoughts about colonial America, and I think that we discovered some of our preconceived thoughts were incorrect./ Steve has turned over to me the list that he kept, and we will examine this list at the end of the unit and see what our ideas were.//

I think yesterday, when the bell rang, we were talking about why it was important to learn about the early settlers. We took care of that,// and perhaps we were at the point of talking about--why do you think we are spending more time talking about English and French settlers than talking about Spanish settlers? Harry?

Episode

t-Harry: Well, the English and French were around where we live now.

T: All right. That's a good point./ In other words, we are more directly related to the English and French than the Spanish.//

Episode

Georgianne?

Georgianne: Well, the Spanish were more adventuresome./ They were not like the people who came here, who were searching for freedom and were more like we are today.

T: All right. I think you're getting to another point there. You're explaining why we are perhaps more indebted to the English and the French than the Spanish,// because the people who came here from England and France were coming for what purpose? Kevin?

Episode

Social Studies Sample - 2.

Rev Exn

Kevin: Well, they came to build colonies and establish settlements, and the Spanish just generally came to get rich and find gold or silver. As Rev

T: All right, we do have to remember that the Spanish did have permanent settlements, but their end purposes were a little bit different. They wanted to get rich quick from the settlements. They weren't interested in tilling the land and so on, like the English and the French might have been.

Episode

Do you think that our emphasis might be different if we lived in Latin America and we were studying the history of our country, like in Brazil or Argentina or something? Greg?

Greg: Well, I think we would be more interested in Spain.

T: Because the Spaniards were the people who settled that area.

Monologue

All right now, let's try to get into this conception that some of you exhibited yesterday. The majority of the people in the class thought that the prime motive or reason for the establishment of a colony in America was for--at least a search for religious freedom. And I think that is a misconception. It is true that many people were looking for religious freedom, but this was not the prime purpose.

Episode

Let's try to backtrack a little bit and try to analyze why did the people who founded the colonies want to colonize the new world. Not necessarily people who came but the ones who were interested in founding the colony. What were they interested in, mainly? Linda?

SAMPLE FROM JUNIOR HIGH SCHOOL ENGLISH TAPESCRIPT

T: // Sts Since you've had the weekend in which to forget what we were talking about last week, I think I'll start out by asking: / Rev What are the three alternative solutions to the problems of South Africa? Carol?

Carol: Rev --There's either the white supremacy or the--black people of of Africa to revolt and--because they would before long and-- / X there was a way that Alan Paton learned how to--what--(several words inaudible) come to--(several words inaudible) of love.

T: Rep All right, white supremacy and the way of love and what-- // Clm a shorter and faster way of saying the second alternative?

G: Clm Black supremacy.

T: Rep Black supremacy. // Rev All right, now. As Carol pointed out, Alan Paton is pleading for the alternative solution. That of brotherly love or peaceful co-esistence between the races. / Lim Now, what do you think of a novelist who tries to preach a lesson or to--promote his point of view through the medium of (1 word)--you think of that. Mary?

Mary: // Qj Exr I was just going to say that I think that it's the type of the novel. I mean, it's the way that it is presented that moves us. He could present it in different ways if he wanted to. // X Not necessarily the--(several words inaudible) the novel or--oh, something that teaches you a moral lesson.

English Sample - 2.

Fm Gen

T: All right. Just as we discussed, it's a short story. Some stories do have a moral or a lesson to preach and then they become parables rather than just generalized short stories. And others simply are entertaining. // Danny?

Danny: Well--I think that more people would be interested in the fiction form of the novel, than--in just a pamphlet giving specific reasons why the two races--races should live together in brotherhood, I think it would attract more attention and would be more interesting.

Judy: Well, since it's--when people read it, it's more parallel to everyday life. You might be able to understand it a lot better in a novel and so on. Otherwise you just see these facts and you wouldn't associate with yourself and how you would feel and react to it.

T: All right. // Well--now, the chief function of any kind of fiction is to entertain, isn't it? Do you feel that in this book, Cry, The Beloved Country, the author is actually entertaining you? Barbara?

Barbara: Well, in a way.

T: // Are you enjoying this story?

Barbara: Yes.

T: // Do you enjoy this story itself? A e you concerned with what--Stephen Kumalo is doing? Do you care whether or not he is able to rescue Absalom? Liz?

English Sample - 3.

Liz: I think that we're looking for two points in this book. One point is for entertainment--the story. The other is what the author is trying to do--what he's trying to teach you.

T: //--Now, what do we call the--the device of spreading a particular doctrine or point of view?

Judy: Propaganda.

SAMPLE FROM JUNIOR HIGH SCHOOL MATHEMATICS TAPESCRIPT*

u-Peter: Svc Need harder ones.

T: Rep You need harder ones. / Agr+ Okay.

Class: Agr+ Agr- Yeah; no, etc. // Scr (T puts figure 21 on board)

Figure 21

1, 2, 3, 4, 10, 11	(written in yellow chalk)
12, 10, 11	(written in red chalk)
1, 2, 3, 4, 5, 6, 7, 8, 9, 10	(written in white chalk)

T: Rev Fm Three languages. You know what the languages are because I'll tell you now; we're counting--successively in each of those languages. Yellow language goes 1, 2, 3, 4, 10, 11. Red language goes 1, 2, 10, 11. You say 11. White language is what you were accustomed to before you got here. // M+b Okay? You know all about these, right?

Peter: M+b Yeah.

T: // Stc Let's see, we'll give you a check. / Conl In yellow language, what is 3 times 3? 3 times 3 in yellow language? But I want your answer in yellow language.

Class Conl 14. / Clg New 14.

T: Clg Yellow 14.

Peter: Rep Yellow 14.

* This class of gifted children is under the instruction of a demonstration teacher who is introducing a special math program to a summer workshop at the University of Illinois (July, 1959).

Mathematics Sample - 2.

T: Clm And when I say "yellow," now, I'm not thinking at all of these colors. // Hu I guess I accidentally must be, but I didn't think of it that way. I--I guess subconsciously--I could--/Hu (laughter from class)/--I tricked myself, yes. We are thinking of this if you want to, there, in yellow language, and we are thinking of this in a fashion--no, I tricked my--there's where it's off. Forget the colors, okay. If I had green up there, it would be the same.

//All right, another check. In red language--let's do it with the same problem--in red language what is 3 times 3?

Peter: 30. (Various members of class disagree with Peter on this answer)

T: In red language there is no 3, so what I said was--(several words inaudible). // In red language what is 10 times 10?

Adrian: 100.

T: In red language 10 times 10 is 100. // What is 2 times 2?

Peter: 11.

T: 11. Okay, I guess you know your languages. // Let's see, in white language what is 6 times 7?

Class: 42.

Mathematics Sample - 3.

T: Right. //

Peter: Well, we never found out what was 3 times 3 in red language.

T: Oh, we didn't. Well, 3 times 3 in red language is a silly question. There aren't any 3's.

Peter: Right. //